

Work Order ID 144900

April 27, 2016 12:35:01 PM

144900

Page 1

Item ID: D350-636-015 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.
 Start Date: 5/4/2016 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 5/25/2016 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: Sm SA Date: 16/04/27 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4168-041	B								
100	Document Control	0.00							
100	DOCUMENT CONTROL	0.00							
DC	Memo								
Doc.Control -USB or Paperwork	record fwd angle: <u>89.5°</u>								

Photocopy blue file and type labels per PPP D350-636-015 CHG 005

B144900LH

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
ZAC 01 03-0					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 144900

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Item ID: D350-636-015**Accept*****N900040100*****Setup Start *NS1*****Revision ID:****Stop *NS2*****Item Name:** Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.**Start Date:** 5/4/2016 **Start Qty:** 1.00 ***1*****Cust Item ID:****Required Date:** 5/25/2016 **Req'd Qty:** 1.00 ***1*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start *NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

0.00

110

Skidtubes

Skidtubes

Memo

0.91

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D4168

3- Drill pilot holes for blade fitting bolt holes using DT8983. Start with 3/16", then open to 0.500" using center drill then ream holes using 0.500" reamer. PIN first side. Repeat process on second side.

ENSURE PROPER POSITIONING FWD BEND MUST BE FACING UP WHEN DRILLING FIRST SIDE

Drill pilot holes as per Dwg D4168 sheet 4 (D4168-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting, section H-H. Open to 0.500" using hole saw. VERIFY AND RECORD FWD BEND ANGLE.

5- Drill tow ring hole using DT9616 detail "A"

6- Drill most FWD wearplate hole using DT9678 locating off of 66.54" hole.

7- Open up holes of Detail A to 0.297" (total of 2 holes per side) and .201" (total of 1 hole per side)

8- Weld D2744 Cap as per Dwg D4168 and QSI 004. Fill grooves in bend left from bending as per QSI 004

16-5-30 JH

DAS
19
9-89

16-5-31 JH

BE 16-06-02

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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Item ID: D350-636-015

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 5/25/2016 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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A/R Aluminum Rod batch: *M134412*

9- Grind welds flush as per Dwg D4168

7 8E16-06-02

120

QC10- Inspect visual per QSI004- ground welds 0.00

120

QC

Memo 0.00

Quality Control

*D 16-06-07*DAS
9
9-89

130

QC5- Inspect part completeness to step on W/O 0.00

130

QC

Memo 0.02

Quality Control

*D 16-06-07*DAS
9
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
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				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
2AC PT ES-									

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

Work Order ID 144900

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Item ID: D350-636-015

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 5/25/2016 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Skidtubes	0.00							
160		1.22							
Skidtubes	Memo 1-Open up holes using hole saw of Detail C and ground handling section AL-AL to 0.625" (total of 8 holes per side) as per dwg D4168. 2-Open up holes using hole saw of Detail B to 0.750" (total of 4 holes per side) as per dwg D4168. 3- Open float hole to 0.500" using uni-bit (4 per side) section AJ-AJ Open wearplate holes to size as per dwg (4 holes per sides) , section CG-CG 4-Chamfer holes of Detail B, C, ground handling section AL-AL and float holes section AJ-AJ per dwg D4168 (welding instructions on sheet 8) 5-Deburr and blow out all chips from inside of tube 6- Prepare tube for welding, remove alodine as required. 7-Bond web D2739 in place as per QSI 015, let cure for 12hrs. A/R Sikaflex-291 batch: <u>134743</u> exp. date: <u>16-12-8</u> ***ATTN: USE I-BEAM LOCATION AID (BLADE FITTING)*** 8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D4168 and D4170-1 & QSI004 (welding instructions on sheet 8) A/R Aluminum Rod batch: <u>m134826</u> <u>BE-16-06-27</u>								

DAS
19
9-89DAS
19
9-89

16-6-10 M.G.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 144900

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Item ID: D350-636-015

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 5/25/2016 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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9- At section AJ-AJ drill out x-bolt spacer to 0.404"

10-Grind welds flush as per Dwg D4168

11-Spot face ground handling holes section (total of 4 places per side) as per
dwg D4168, section AL-AL12- C'bore section CG-CG. ADJUST TOOLING AS REQUIRED.
VERF BY: BE13- Deburr holes, ensure tube is free of all scratches before sending to
paint.***** FOR DELUXE SKIDTUBE IF APPLICABLE DRILL TOW RING
HOLE IN TUBE *****

*****REF TO W/O BATCH: *****

170

QC10- Inspect visual per QSI004- ground welds 0.00

170

QC

Memo 0.00

Quality Control

DAS
38
9-90
JUL 19 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified	☐	Past Due	☐				

Work Order ID 144900

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Item ID: D350-636-015 Accept *N900040100* Setup Start *NS1*

Revision ID: Stop *NS2*

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016 Start Qty: 1.00 *1* Cust Item ID:

Required Date: 5/25/2016 Req'd Qty: 1.00 *1* Customer:

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 *180* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo ***VERIFY C'BOARD IS GOOD***	0.00 0.02				1			DAS 38 9-89 JUL 19 2016
190 *190* HandFinish Hand Finishing	Pressure Wash per QSI005 4.3 Memo Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.	0.00 0.54				①			DAS 34 9-89 2016/07/19 BEB
200 *200* SprayPaint Spray Painting	 Memo 1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: 134937 2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: 135064	0.00 0.56				1			DAS 41 9-89 16-8-16

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

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Item ID: D350-636-015

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N900040100

Setup Start *NS1*

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Stop *NS2*

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016 Start Qty: 1.00 *1*

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Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC14- Inspect Spray Paint	0.00							
210									
QC	Memo	0.01							
Quality Control	Inspect for foreign object per QSI 024								
230		0.00							
230	HandFinishing								
HandFinish	Memo	0.97							
Hand Finishing	1- Install inserts as per Dwg D4168								
	2-Inspect for Foreign Objects								
	3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D4168								
	SIKA FLEX 241								
	BATCH: M135376								
	EXP DATE: 16112								
	4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube								
	A/R 55-o'ring lube batch: M133145								
	5-Coat all exposed fasteners with "LPS Procyon" batch: M133690								

DAS
15
9-89

16112 1610818

16112 1610815

16109

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

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144900

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Item ID: D350-636-015 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.
 Start Date: 5/4/2016 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 5/25/2016 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC5- Inspect part completeness to step on W/O	0.00							
240									
QC	Memo	0.02							DAS 9 9-89
Quality Control									
250	Pick Kit	0.00							
250									
Packaging	Memo	0.01							DAS 28 9-89
Packaging	If making a D350-636-215 pick kit will only requires: 1 X AN3C37A 1 X AN3C34A 1 X AN3C42A 2 X D3493-1								
260	QC4- 100% Inspect kits for completeness	0.00							
260									DAS 27 9-89
QC	Memo	0.03							
Quality Control	*****ensure antiseize is on AN8C21A bolts*****								

DR

AUG 22 2016

AUG 24 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Work Order ID 144900

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Item ID: D350-636-015**Accept*****N900040100*****Setup Start *NS1*****Revision ID:****Stop *NS2*****Item Name:** Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.**Start Date:** 5/4/2016 **Start Qty:** 1.00 ***1*****Cust Item ID:****Required Date:** 5/25/2016 **Req'd Qty:** 1.00 ***1*****Customer:****Reference:**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1***Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
270		0.00							
270	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPPD350-636-015 Location :FG071								
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	Memo	0.10							
Quality Control									

SMB

16/9/12

DAS
21
9-89

SEP 12 2016

DAS
21
9-89

SEP 12 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP rev:A 10.09.28 new issue DD verf:EC IPP Rev:B
11.04.14 ecn11-553 DD verf:EC IPP Rev:C 11.10.18 as per
NCR 11-906 DD verf:EC IPP Rev:D 112.04.16 AS PER ECN 12-
542 DD verf:EC IPP REV:E 13.08.28 PER ECN13-594 DD
VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN3C34A		Purchased	No			230	Each	4.0000	1	1			
AN3C34A									**			16/08/18	
BOLT													
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					ST348			4					
					m133483			4		X1			
AN3C36A		Purchased	No			230	Each	288.0000	4	4			
AN3C36A									**			16/08/18	
Bolt													
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					FG			47					
					101261			4					
					122204			2					
					m131367			1					
					m132169			40					
					FP001			80					
					m131856			1					
					m132381			79					
					OVER002			135		X4			
					m132522			55					
					m133916			80					
					ST347			26					
					131651			26					

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Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

D3492-1

Manufactured No

230

Each

12.0000

Start Qty: 1.00

8

8

Required Qty: 1.00

D3492-1

Plug

**

del 16/08/16

Location

Loc Qty

Loc Code

FP001

12

B147576

x8

141659

12

D3492-3

Manufactured No

230

Each

43.0000

8

8

D3492-3

Plug

**

del 16/08/16

Location

Loc Qty

Loc Code

FP001

43

B142869

x8

133470

3

141585

40

D3873-1

Manufactured No

230

Each

153.0000

7

7

D3873-1

Bushing

**

del 16/08/16

Location

Loc Qty

Loc Code

FP001

133

136425

82

x7

137632

1

141441

50

ST056

20

137632

20

D4154-041

Manufactured No

230

Each

2.0000

1

1

D4154-041

Wearplate Assembly

**

del 16/08/16

Location

Loc Qty

Loc Code

FP002

2

B143342

138703

2

x1

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Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

D4170-1 Manufactured No 230 Each 41.0000 Start Qty: 1.00 4 4 Required Qty: 1.00

D4170-1

Bushing

**

BE 16-06-27

Location

Loc Qty

Loc Code

LG001

41

107896

41

4

D4171-1

Manufactured No

230 Each

19.0000 1 1

D4171-1

Bushing

**

1610818

Location

Loc Qty

Loc Code

ST088

19

137712

19

11

MS21043-3

Purchased No

230 Each

1,050.000 5 5

MS21043-3

Nut

**

1610818

Location

Loc Qty

Loc Code

FG

80

103691

80

FP001

11

m130673

11

GA

385

m133990

385

OVER007

400

m134502

400

ST302

68

m133577

68

ST304

106

m131340

106

15

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Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

NAS1149C0363R

Purchased

No

230

Each

Start Qty: 1.00
706.0000 9 9

Required Qty: 1.00

NAS1149C0363R

Washer

**

16/08/18

Location

Loc Qty

Loc Code

FP001

301

114742

6

m133077

295

GA

345

m133077

345

ST266

60

m133077

60

NAS1515H3L

Purchased

No

230

Each

211.0000 4 4

***NAS1515H3L ***

Washer

**

16/08/18

Location

Loc Qty

Loc Code

FG

40

102472

40

FP001

67

m127831

67

ST260a

100

m134508

100

ST266

4

m130726

4

NAS1611-010

Purchased

No

230

Each

189.0000 8 8

NAS1611-010

O-RING

**

16/08/18

Location

Loc Qty

Loc Code

FP001

189

m130770

77

m131618

12

m134593

100

M135297

x2

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Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

NAS1611-013

Purchased

No

230

Each

Start Qty: 1.00
118.0000 8 8

Required Qty: 1.00

NAS1611-013

O-Ring

**

ll 16/02/18

Location

Loc Qty

Loc Code

FP001

118

M135297

vg

m130758

19

m133812

99

AN3C37A

Purchased

No

250

Each

360.0000 1

AN3C37A

BOLT

**

1
xm131651 pc
DAS 28 9-89

Location

Loc Qty

Loc Code

OVER002

350

131651

70

M131367

70

M131856

70

M132169

70

M132381

70

ST347

10

M128773

0

M129650

10

*DAS
27
9-89*

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Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

AN3C42A

Purchased

No

250

Each

83.0000

Start Qty: 1.00

1 1

Required Qty: 1.00

AN3C42A

Bolt

**

PC DAS 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

FG	5	
121103	5	
OVER002	50	
m132674	10	
m133091	10	
m133336	10	
m134131	10	
m134133	10	
ST338a	3	
m130485	3	
ST346	15	
m132381	5	
<u>m132522</u>	10	1
ST347	10	
m133920	10	

NAS1149D0863J

Purchased

No

250

Each

516.0000

2 2

NAS1149D0863.J

Washer

**

PC DAS 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

FP001	47	
125484	47	
ST260a	100	
125635	100	
ST263	369	
<u>125268</u>	369	2

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Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

D2744 Manufactured No 110 Each 26.0000 Start Qty: 1.00 1 1

D2744

Cap

**

86160602

Location

Loc Qty

Loc Code

LG001

26

137684

26

D2600-3-BENT-LH

Manufactured No

110 Each

3.0000 1 1

D2600-3-BENT-LH

Extrusion Bent LH

**

16-5-230 JH

Location

Loc Qty

Loc Code

LG002

3

142820

3

D2743

Manufactured No

160 Each

131.0000 8 8

D2743

Crossbolt Spacer

**

86160627

Location

Loc Qty

Loc Code

LG001

131

141078

131

D2739

Manufactured No

160 Each

6.0000 1 1

D2739

350 I Beam

**

16-6-10 H.G

Location

Loc Qty

Loc Code

LG002

6

146128

1

140830

5

142914

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Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

D3490-3 Manufactured No

160

Each

Start Qty: 1.00
96.0000 4 4

Required Qty: 1.00

D3490-3

Cross Bolt Spacer

**

BE16-06-27
~~BT16-03-27~~

Location

Loc Qty

Loc Code

LG001

96

137807

2

140801

94

4

D3490-1 Manufactured No

160

Each

12.0000 4 4

D3490-1

Cross Bolt Spacer

**

BE16-06-27
B144632+4

Location

Loc Qty

Loc Code

LG001

12

134019

4

140802

8

ALS4-1032-225 AELS8-1032-225 Purchased No

230

Each

404.0000 4 4

AI S4-1032-225

Rivnut

**

11 16/02/18

Location

Loc Qty

Loc Code

FG

120

M127028

120

M134975

x4

FP001

15

M133772

15

ST

30

M133799

30

ST280

239

M128454

239

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Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

AN8C35A

Purchased

No

230

Each

96.0000

Start Qty: 1.00

1

1

Required Qty: 1.00

AN8C35A

Bolt

**

all 16/08/16

Location

Loc Qty

Loc Code

FG

5

121275

5

FP001

16

m132381

1

m132522

15

over005

75

m133332

15

m133336

15

m134130

15

m134131

15

m134133

15

D3488-041

Manufactured

No

230

Each

6.0000

1

1

D3488-041

Blade Fitting LH

**

all 16/08/16

Location

Loc Qty

Loc Code

FP001

6

141109

6

B144742

xl

Picklist Print

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Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

AN6C44A

Purchased

No

230

Each

Start Qty: 1.00
429.0000 4 4

Required Qty: 1.00

AN6C44A

Bolt

**

all 16/08/18

Location

Loc Qty

Loc Code

FP001

81

131649

50

m130863

9

m131151

22

over009

298

m132522

52

m132556

246

ST333

50

m130863

4

m131946

46

MS21083C8

Purchased

No

230

Each

42.0000 1 1

MS21083C8

Nut

**

all 16/08/18

Location

Loc Qty

Loc Code

FP001

9

m133990

9

ST297

33

m134055

13

m134509

20

D3631-1

Manufactured

No

230

Each

147.0000 8 8

D3631-1

Washer

**

all 16/08/18

Location

Loc Qty

Loc Code

FP001

147

140533

47

142562

100

13147068

13142562

X5

X3

Picklist Print

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Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

NAS1149C0332R

Purchased

No

230

Each

Start Qty: 1.00
3,413.000 4 4

Required Qty: 1.00

NAS1149C0332R

WASHER

**

Handwritten: 16/08/18

Location

Loc Qty

Loc Code

FP001

1732

m132262

4

Handwritten: 1134046

Handwritten: X4

m132930

1004

m134063

596

m134073

128

GA

225

m133284

225

ST266

1456

m134474

356

m134574

1000

m134654

100

D2745

Manufactured

No

230

Each

57.0000 8 8

D2745

Bushing

**

Handwritten: 16/08/18

Location

Loc Qty

Loc Code

FP001

57

129584

7

Handwritten: B144633

Handwritten: X8

136214

2

141061

48

NAS1149C0832R

Purchased

No

230

Each

55.0000 1 1

NAS1149C0832R

Washer

**

Handwritten: 16/08/18

Location

Loc Qty

Loc Code

FP001

55

m125807

55

Handwritten: X1

April 27, 2016 12:35:06 PM

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Page 11

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Page 12

Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

AN3C6A

Purchased

No

230

Each

Start Qty: 1.00
174.0000 4 4

Required Qty: 1.00

AN3C6A

Bolt

**

16/08/18

Location

Loc Qty

Loc Code

CA

31

m128704

31

FG

10

122416

10

FP001

28

m128769

10

m133363

5

m133990

13

ST338a

6

m133077

6

ST349

99

m132767

4

m133694

1

m134502

94

x4

MS21043-6

Purchased

No

230

Each

75.0000 4 4

MS21043-6

NUT

**

16/08/18

Location

Loc Qty

Loc Code

FG

20

103693

20

FP001

29

m134365

29

ST302

26

m134557

26

M135297

vcl

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Page 12

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Page 13

Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

D3493-1

Manufactured No

250

Each

96.0000

Start Qty: 1.00

Required Qty: 1.00

2 2

D3493-1

Washer

**

PC

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG 10
97201 10
ST039 86
140678 86

MS21083C8

Purchased No

250

Each

42.0000

2

MS21083C8

Nut

**

2
XM134555 PC

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001 9
m133990 9
ST297 33
~~m134855~~ 13
m134509 20

AN8C21A

Purchased No

250

Each

120.0000

2

AN8C21A

Bolt

**

2
XM134130 PC

DAS
28
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

FG 4
123966 2
m132169 2
over005 90
m134130 30
m134514 30
m134590 30
ST332 26
m132169 2
m132522 4
m133917 20

AUG 22 2016

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Page 13

Picklist Print

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Page 14

Work Order ID: 144900

144900

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 5/4/2016

Required Date: 5/25/2016

D2741

Manufactured No

250

Each

36.0000

Start Qty: 1.00

Required Qty: 1.00

D2741

Replacement Blade

**

①
X B145 632 PC
DAS 28 9-89

Location

Loc Qty

Loc Code

FG	10	
131616	10	
ST538	26	
132981	15	
141001	11	

DAS
27
9-89

9-89

AUG 22 2016

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D4168-041	350 SKIDTUBE ASSEMBLY, LH
	X			D4168-042	350 SKIDTUBE ASSEMBLY, RH
		X		D4168-043	350 SKIDTUBE ASSEMBLY, LH
			X	D4168-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
8	8	8	8	D3631-1	WASHER
7	7	7	7	D3873-1	BUSHING
1	1	1	1	D4154-041	WEARPLATE ASSEMBLY
1				D4168-1	SKIDTUBE WELDMENT, LH
	1			D4168-2	SKIDTUBE WELDMENT, RH
		1		D4168-3	SKIDTUBE WELDMENT, LH
			1	D4168-4	SKIDTUBE WELDMENT, RH
4	4	4	4	D4170-1	SPACER
1	1	1	1	D4171-1	BUSHING
4	4	4	4	ALS4-1032-225	INSERT
4	4	4	4	AN3C6A	BOLT
1	1	1	1	AN3C34A	BOLT
4	4	4	4	AN3C36A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
9	9	9	9	AN960C10	WASHER (OR NAS1149C0363R)
4	4	4	4	AN960C10L	WASHER (OR NAS1149C0332R)
1	1	1	1	AN960C816L	WASHER (OR NAS1149C0832R)
5	5	5	5	MS21043-3	NUT
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
STANDARD: PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2
B. OPTIONAL POWDER COAT WHITE (REF. 4.3.5.3) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS
- WELD PER DART QSI 004
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
FINISH WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

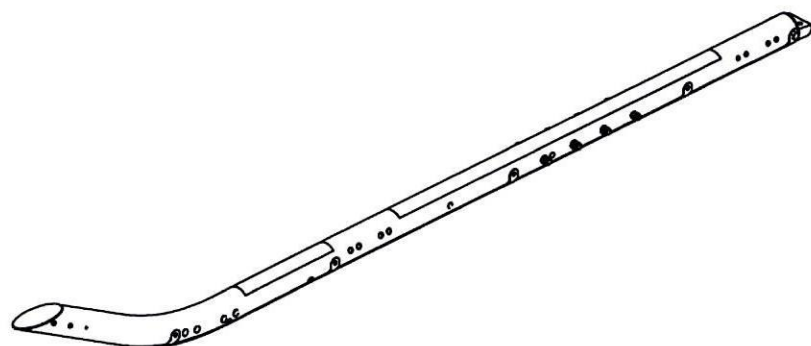
RELEASED
2013-08-13
JMP

B	ADD VIEW TO CONTROL FWD BEND ORIENTATION (ZN D-1-4/-5/-6/-7); UPDATED FINISH OPTIONS. REASON: PAR13-276 AND NCR13-2757	MB	13.07.11
A	NEW ISSUE	SC	10.08.09
REV.	DESCRIPTION	BY	DATE
DESIGN	SC		
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CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	13.07.11		

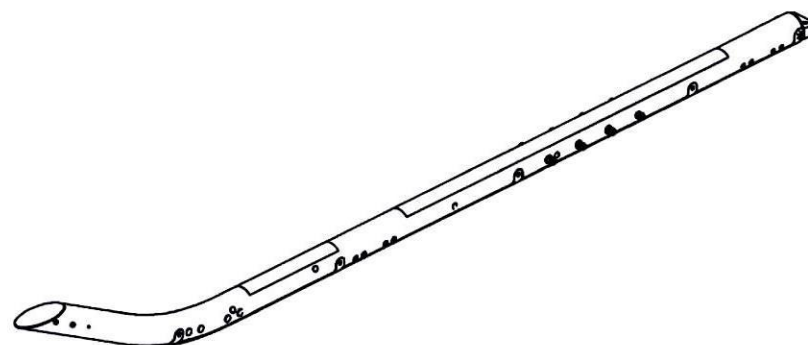
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DRAWING NO. D4168	REV. B
TITLE 350 SKIDTUBE ASSEMBLY	SHEET 1 OF 11
	SCALE NTS
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w/o 144900

2m 16/04/27



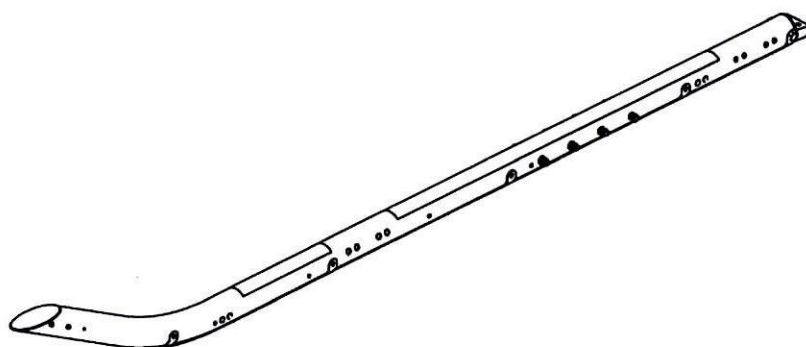
D4168-041 350 SKIDTUBE ASSEMBLY, LH



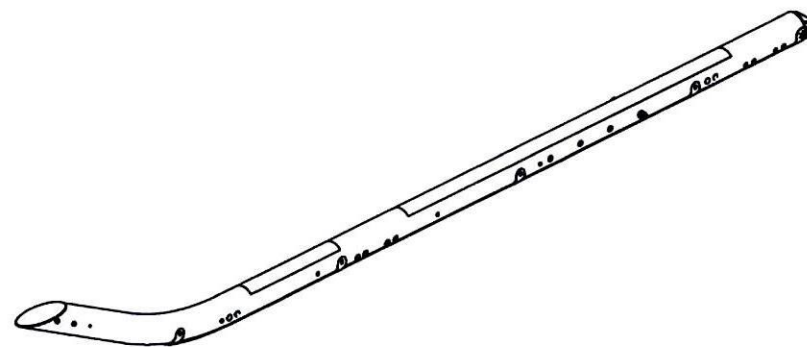
D4168-042 350 SKIDTUBE ASSEMBLY, RH

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2013-08-13

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MFG. APPR.		D4168	SHEET 2 OF 11
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D4168-043 350 SKIDTUBE ASSEMBLY, LH

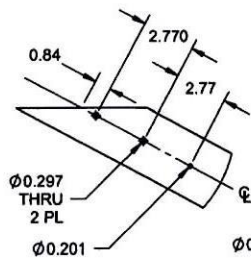
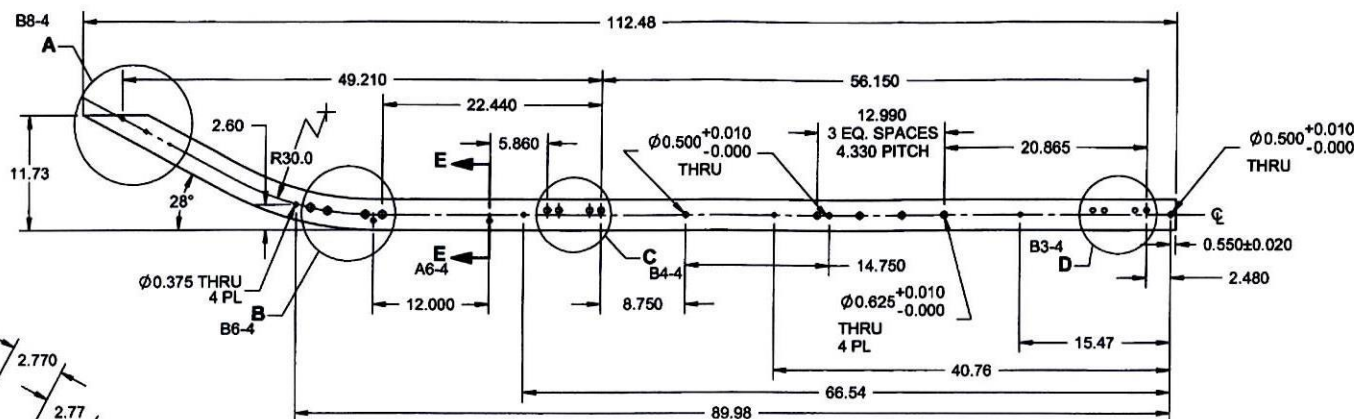
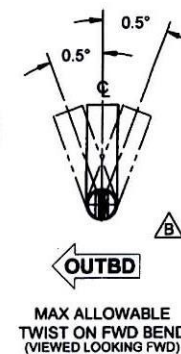


D4168-044 350 SKIDTUBE ASSEMBLY, RH

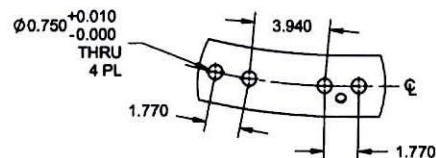
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APPROVED	<i>[Signature]</i>	TITLE	NTS
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	
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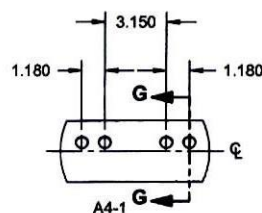
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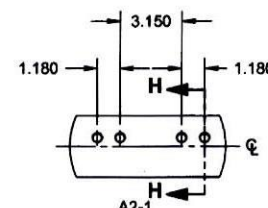
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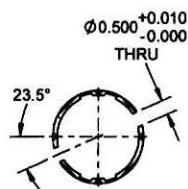
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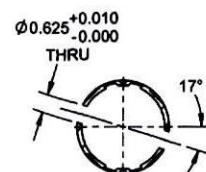
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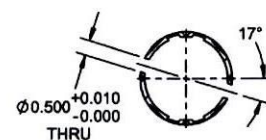
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SCALE 2X



SECTION E-E
SCALE 3X, 2 PL



SECTION G-G
SCALE 3X, 4 PL



SECTION H-H
SCALE 3X, 4 PL

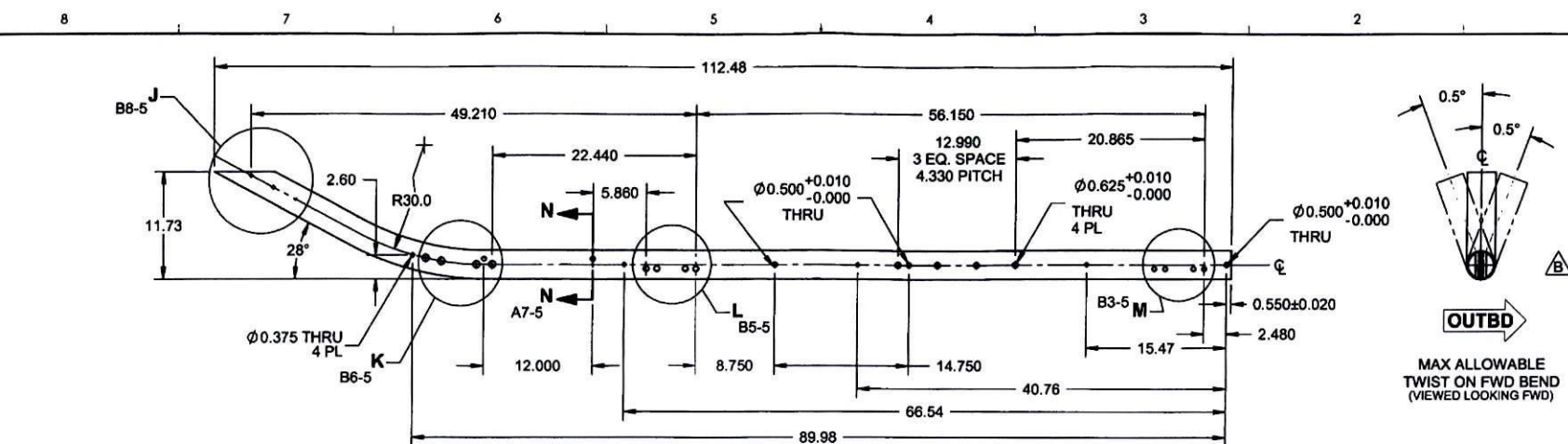
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DART AEROSPACE USA, INC.
KENT, WA

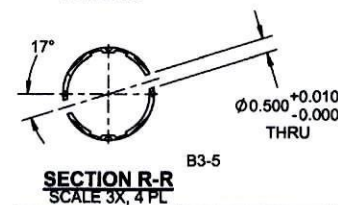
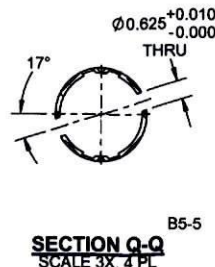
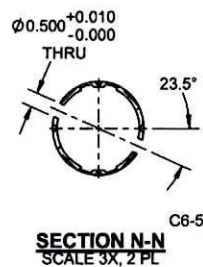
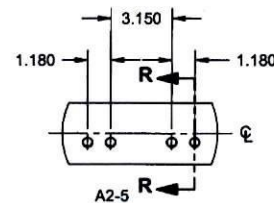
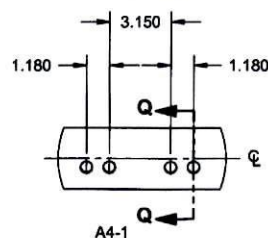
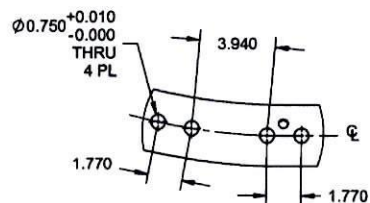
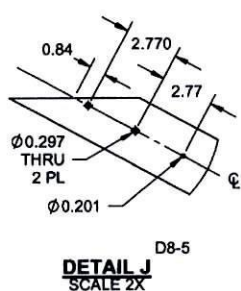
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350 SKIDTUBE ASSEMBLY
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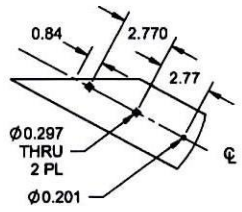
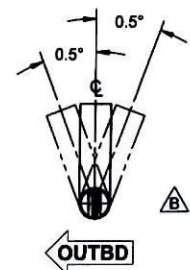
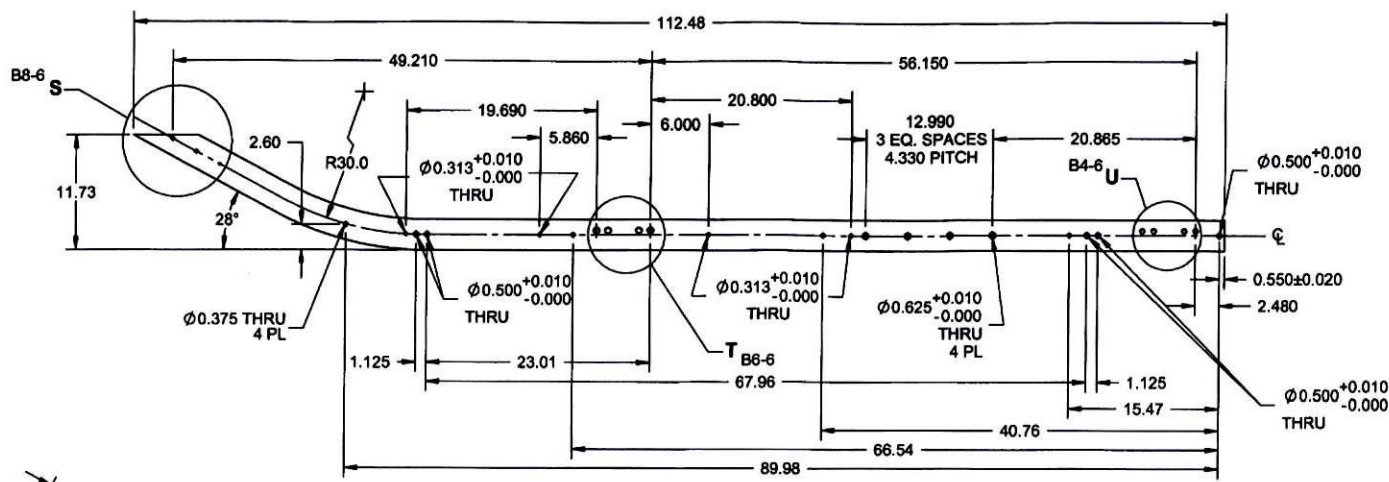


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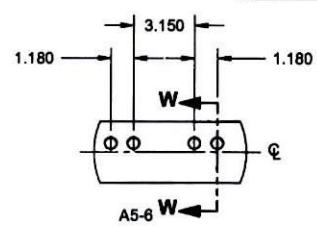


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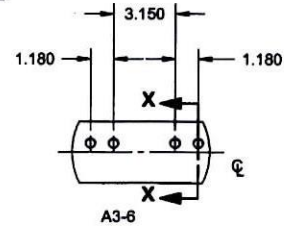
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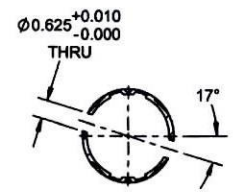
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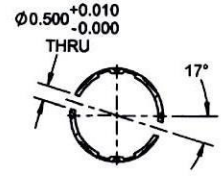
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DETAIL U
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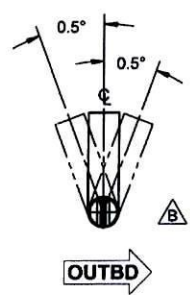
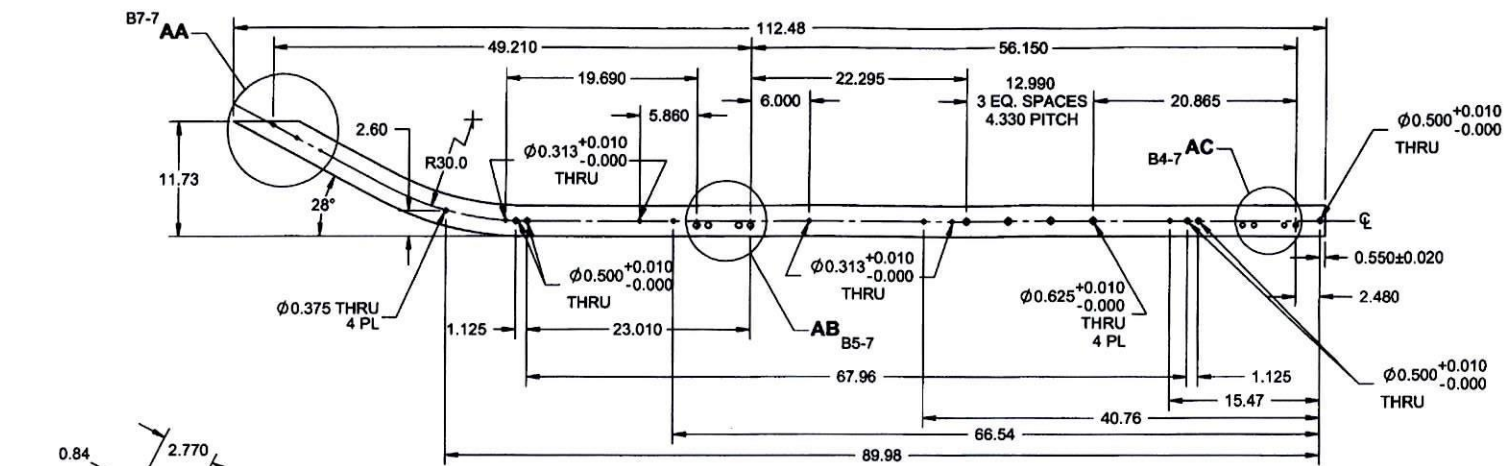
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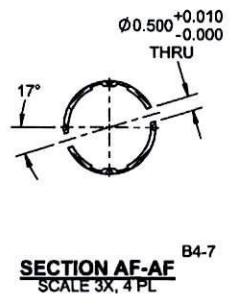
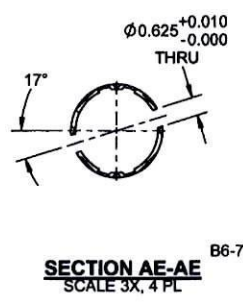
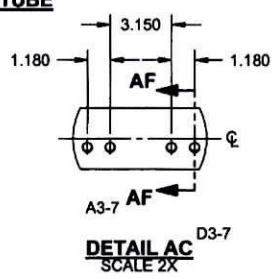
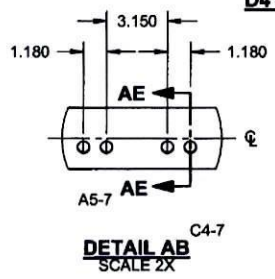
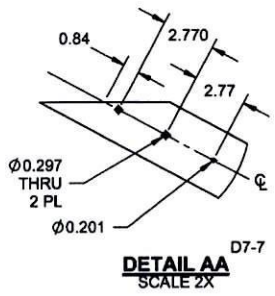
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DATE 13.07.11

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KENT, WA
DRAWING NO.
D4168
TITLE
350 SKIDTUBE ASSEMBLY
REV. B
SHEET 6 OF 11
SCALE
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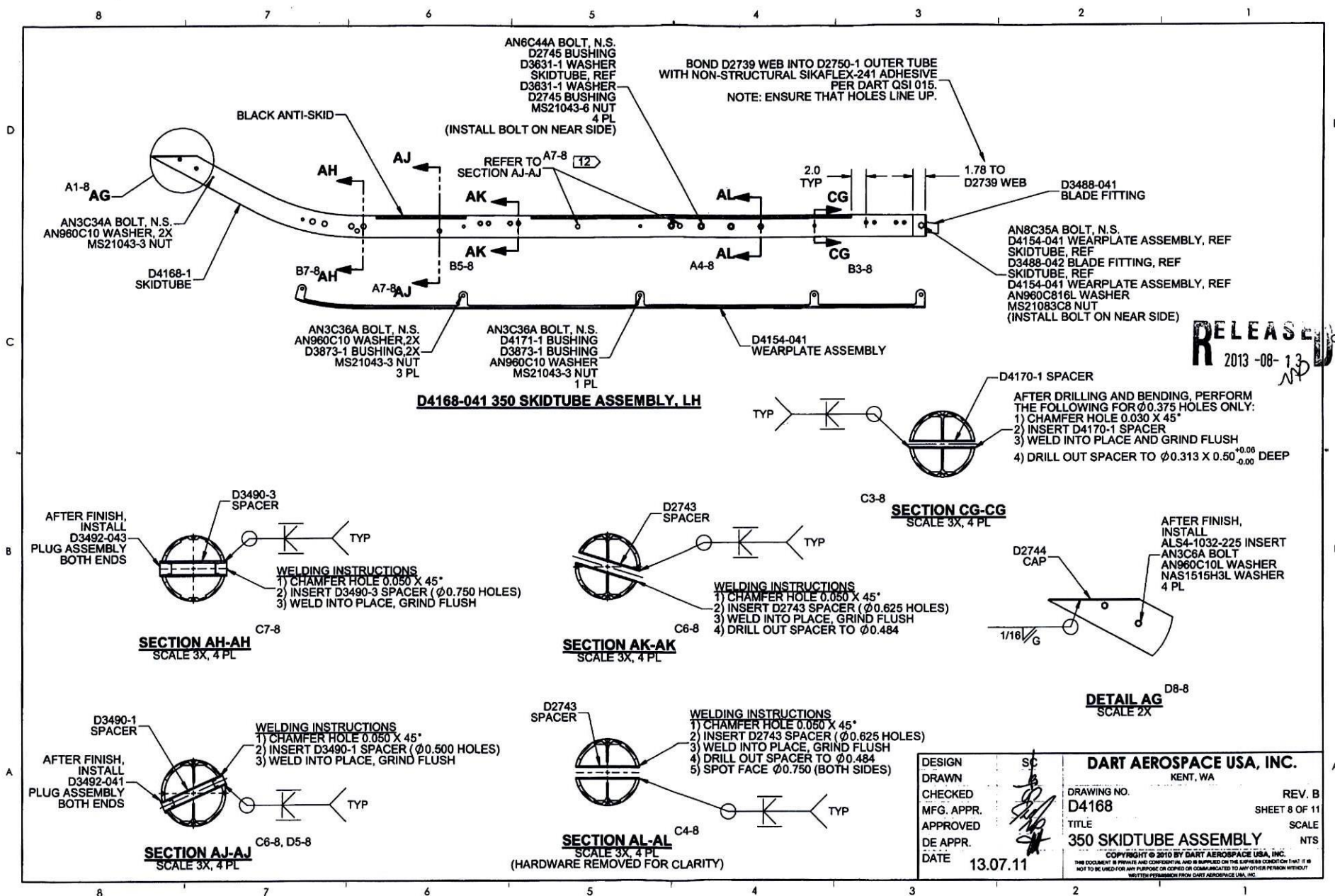
MAX ALLOWABLE
TWIST ON FWD BEND
(VIEWED LOOKING FWD)



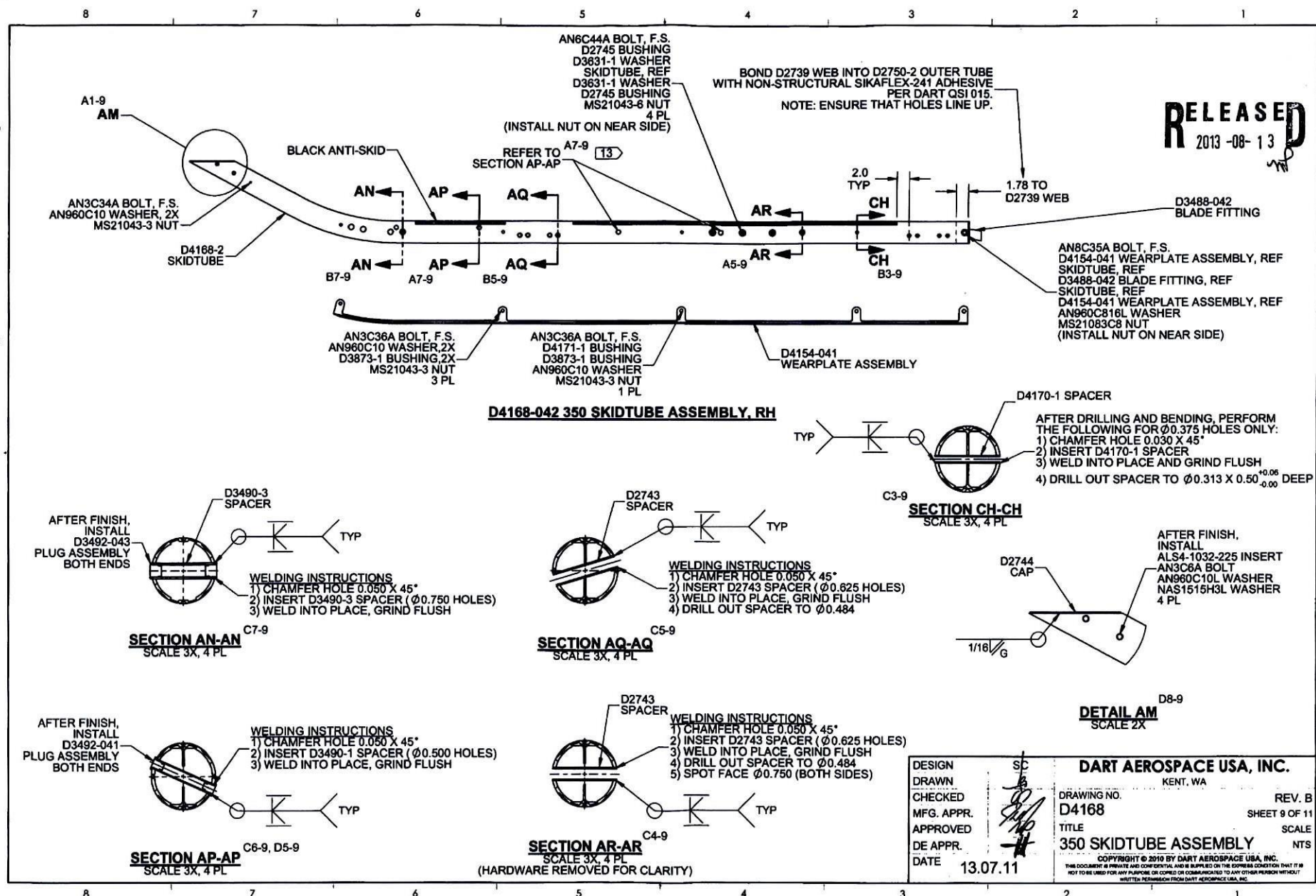
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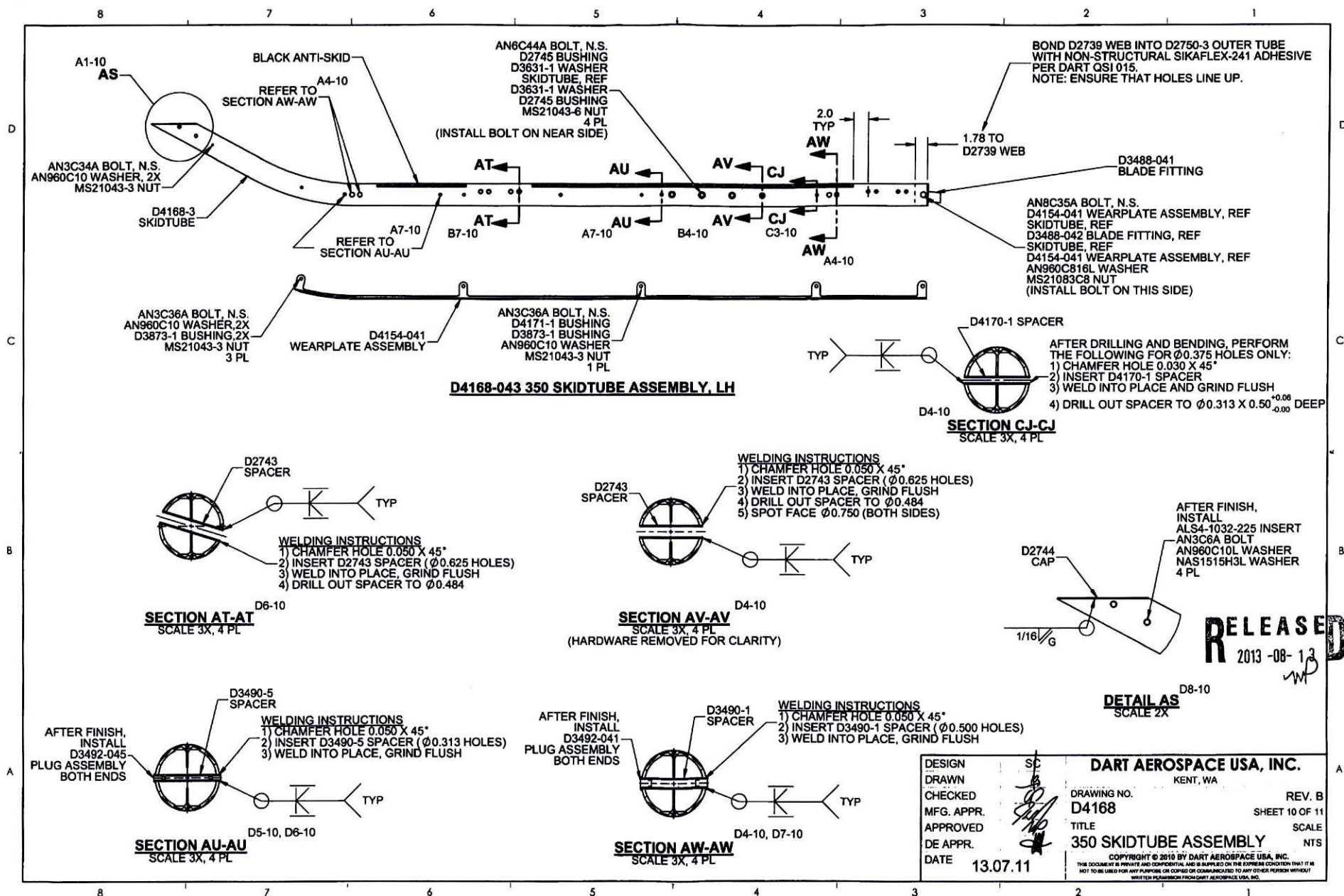
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8 7 6 5 4 3 2 1



RELEASED
2013-08-13





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7

6

5

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3

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